

In the Claims

1. (Currently Amended) Locking element (8,9;60) for locking and unlocking a cable connector (2) and a counterpart (3,7), said locking element (8,9;60) extending along a longitudinal axis (40;63) between a rear side (41;64) and a mating side (42;62), said mating side (42;62) comprising two or more resilient beams (43;65) extending substantially parallel to said longitudinal axis (40;63) and containing one or more locking structures (44;66) comprising an insertion surface (50;67) and a locking surface (51;68) disposed at angles (α, α') with said longitudinal axis (40;63) characterized in that said insertion surface (50;67) and said locking surface (51;68) have an inclined orientation with respect to said longitudinal axis (40;63) wherein said angle (α') of said locking surface (51;68) is larger than said angle (α) of said insertion surface (50;67) but substantially smaller than 90 degrees.

2. (Currently Amended) Locking element (8,9;60) according to claim 1, wherein said insertion surface (50;67) and said locking surface (51;68) substantially determine said locking structure (44;66).

3. (Currently Amended) Locking element (8,9;60) according to claim 1 or 2, wherein a solid of revolution of said locking structure (44;66) comprises a substantially conically shaped portion.

4. (Currently Amended) Locking element (8,9;60) according to ~~any one of the preceding claims~~ 1, wherein said locking structure (44;66) is determined by a first solid of revolution having a first substantially conical shape and a second solid of revolution having a second substantially conical shape and wherein said insertion surface (50;67) is determined by a surface of said first substantially conical shape and said locking surface (51;68) is determined by a surface of said second substantially conical shape.

5. (Currently Amended) Locking element (8,9) according to ~~any one of the preceding claims~~ 1, wherein said locking element (8,9) comprises one or more slits (45).

6. (Currently Amended) Locking element (60) according to ~~any one of the~~ claims 1-4, wherein said locking element (60) comprises a hole (64) at or near said mating side (62) determining said resilient beams (65).

7. (Currently Amended) Locking element (8,9;60) according to ~~any one of the~~ preceding claims 1, wherein said mating ends of said resilient beams (43;65) are rounded off.

8. (Currently Amended) Locking element (8,9;60) according to ~~any one of the~~ preceding claims 1, wherein said locking element (8,9;60) comprises a retaining structure (69) adapted to keep said locking element (8,9;60) attached to either said cable connector (2) or said counterpart (3,7).

9. (Currently Amended) Connector system (1) comprising a cable connector (2) and a board connector (3) wherein one or more locking elements (8,9;60) are applied to connect said cable connector (2) and board connector (3), said locking elements (8,9;60) having a locking structure (44;66) and extending along a longitudinal axis (40;63) between a rear side (41;61) and a mating side (42;62) characterized in that said locking structure (44;66) is disposed on one or more resilient beams (43;65) extending substantially parallel to said longitudinal axis (40;63).

10. (Currently Amended) Connector system (1) according to claim 9, wherein said locking structure (44;66) comprises an insertion surface (50;67) having an inclined orientation with respect to said longitudinal axis (40;63).

11. (Currently Amended) Connector system (1) according to claim 10, wherein said locking structure (44;66) comprises a locking surface (51;68) having an inclined orientation with respect to said longitudinal axis (40;63) wherein the inclination angle (∞') of said locking surface (51;68) is larger than the inclination angle (∞) of said insertion surface (50;67) but substantially smaller than 90 degrees.

12. (Currently amended) Connector system (1) according to ~~any one of the claims 9-14~~, wherein said ~~locking elements (8,9;60) are locking elements (8,9;60) according to any one of the claims 2-8~~ locking structure comprises an insertion surface and a locking surface disposed at angles with said longitudinal axis characterized in that said insertion surface and said locking surface have an inclined orientation with respect to said longitudinal axis wherein said angle of said locking surface is larger than said angle of said insertion surface but substantially smaller than 90 degrees, wherein said insertion surface and said locking surface substantially determine said locking structure.

13. (Currently Amended) Connector system (1) according to ~~any one of the claims 9-12~~, comprising two or more locking elements (8,9) of different length along said longitudinal axis (40).

14. (Currently Amended) Connector system (1) according to ~~any one of the claims 9-13~~, wherein said cable connector (2) and board connector (3) connect to each other via an aperture (6) in a panel (7), said locking element (60) comprising a retaining structure (69) adapted to keep said locking element (60) attached to said panel (7).

15. (Currently Amended) Connector system (1) according to ~~any one of the claims 9-14~~, wherein board connector (3) or a counterpart (3) comprises a locking structure for receiving the locking element (8,9) .

16. (Currently Amended) Connector system (1) according to claim 15, wherein said locking structure comprises a threaded hole (10;11,11').